

ABSTRACT OF THE DISCLOSURE

A Y slider extending in an X-axis direction can move in a Y-axis direction by a Y linear motor. An X slider loaded with a fine movement stage can be guided 5 by a Y slider to move in an X-axis direction by an X linear motor. At least a pair of Y electromagnets are provided to the X slider to oppose guide surfaces of the Y slider. A Y attracting plate is provided to each guide surface of the Y slider. The pair of Y 10 electromagnets generate attracting forces in opposite directions along the Y-axis direction between the X and Y sliders. Thus, the X and Y sliders can be kept in noncontact with each other. When the Y slider is to move in the Y-axis direction, an appropriate 15 accelerating force can be applied to the X slider.